

Amendments To The Specification

Replace paragraph 0002 with the following amended paragraph:

[0002] Bleed valves of this type are normally configured for vertical installation into the wall of the fuel tank of a vehicle and are intended to provide a continuous connection between the inner chamber of the tank above a fuel level and the outside environment, so that in the open position, air is able to escape from the tank during the filling procedure and air can flow into the tank as fuel is consumed, in order to prevent a vacuum from building up. In the event that the tank is overfilled or that the position of the valve is substantially ~~deviating~~ deviates from its usually topside position on the tank, the last condition indicating that an accident has occurred or that the vehicle has overturned, ~~going along with creating~~ a risk that fuel may leak out in an uncontrolled manner, the valve should be switched to its closed position. Therefore, in dependence upon the operating state of the tank or the vehicle, a ~~facility~~ device for automatically switching the valve should be configured in a reliable manner between an open position and a closed position. In particular, characteristic vehicle movements based on which are determined by the drive operation of the vehicle are also to be taken into consideration for the operation of the valve.

Replace paragraph 0003 with the following amended paragraph:

[0003] A valve of this type is disclosed e.g. in DE 696 01 135. A floating body which cooperates with an elongate, strip-like, flexible membrane is disposed inside a cylindrical housing which on the base-side comprises inlet orifices and on the topside comprises an outlet orifice. The floating body can move axially inside the housing between an open and a closed position of the valve and is supported on the base-side by a spring. The movement of the floating body inside the housing and thus the switching position of the valve is thus determined quantitatively by the lifting force, which acts upon the floating body and is

dependent upon the fuel level, by a mass force and by the force of the spring. On its side facing towards the floating body the outlet orifice which is configured in an elongate or slit-like manner forms with its rim a valve seat for the membrane which is fixed in the closed position of the valve between the valve seat, which extends in an inclined manner with respect to the axis of the housing, and a counter surface (the counter surface is also called a bearing surface as used in US 5738132 which is related to and an English version of DE 696 01 135) of the floating body which extends in parallel with the valve seat. The membrane is secured merely at one end to the floating body. By reason of the inclined orientation of the valve seat and of the counter surface relative to the axis of the housing and thus the movement direction of the floating body, the opening procedure of the valve is characterised by the fact that the membrane becomes gradually detached from the valve seat.

Replace paragraph 0018 with the following amended paragraph:

[0018] Reference will be initially made hereinafter to Figures 1 to 2 and 5 of the drawings. As shown therein, the bleed valve consists of a cylindrical housing 1 which is closed off on the topside 1" by means of a preferably detachably inserted cover 2, and of a generally likewise cylindrical floating body 3 which is disposed in the housing 1 in such a manner as to be able to move in the direction of the longitudinal axis 5 thereof.

Replace paragraph 0021 with the following amended paragraph:

[0021] The topside 3" of the floating body 3 is characterised by a ring-like arrangement of identically configured support fingers 10 which extends substantially coaxially with respect to the longitudinal axis 5. The support fingers are integrally formed ~~in one piece~~ with the floating body 3 at uniform peripherally spaced intervals and protrude from the otherwise planar topside, which is radial in relation to the axis 5, of the floating body. The reference numeral 11 designates an approximately ~~circular~~ pyramid conically-shaped guide mandrel

which is located in a central position inside the ring-like arrangement and protrudes from the topside 3" and whose significance will be explained hereinafter. In the illustrated exemplified embodiment, the guide mandrel ~~comprises a shorter axial extension~~ extends a shorter distance axially in the direction towards the topside 1" than the support fingers 10 (see Fig. 2).

Replace paragraph 0022 with the following amended paragraph:

[0022] The reference numeral 12 designates a support disc which in the peripheral region forms an annular step which is adjoined by an annular flange 13. The support disc 12 comprises a central circular ~~orifice~~ opening 14, into which protrudes a cylindrical projection 16 which is formed integrally in one piece with a sealing disc 15 and by means of which the sealing disc is releasably connected to support disc 12. The sealing disc 15 overlies the support disc 12 on its side facing away from the floating body 3, i.e., the support disc has a counter surface 12' for bearing against the sealing disc (see Fig. 2). The annular step of the support disc 12 encompasses the outer side of the arrangement of support fingers 10 and as a result thereof is subjected to a substantially axially directed guiding movement. A guiding or centring effect is also exerted by virtue of the guide mandrel 11 which protrudes into the open end 16" of the projection 16 facing towards the guide mandrel. The projection 16 also forms a continuous connection 16' (a fluid conduit) between its open end 16" facing towards the guide mandrel 11 and its open end 16'" facing towards the valve seat 19. The reference numerals 17, 17' designate two angular retainer elements which are attached in a mutually diametrically opposed manner to the floating body 3, each having an abutment section 17" extending over the annular flange 13, and which are intended for the positive locking engagement over to engage the top of the annular flange 13 as seen in Fig. 4 to lock in place a pivot axis 30 of the support disk 13 and thus the sealing disc 12 at an incline as further discussed below. the annular flange 13 and whose The axial lengths of the retainer elements are different in dimension as shown. This means that the ~~possibilities available for~~

~~moving potential movements of~~ the support disc 12 with respect to the two retainer elements 17, 17' accordingly ~~turn-out to~~ will be different. In each case, according to the dimensions of the two retainer elements 17, 17' the entire system consisting of a support disc and sealing disc 12, 15 is subjected to an approximately cardanic suspension or mobility on or with respect to the floating body. Put another way, when the valve is in the fully closed position as shown in Fig. 3, the support disc and sealing disc 12, 15, can pivot about the mandrel 11 generally in any direction relative to the floating body 3, i.e., pivotally move about two mutually perpendicular pivot axes 30 and 31 as shown in Fig. 5. The pivot axis 30 passes through the retainer elements 17, 17' as shown. However, when the valve starts to open, i.e., as the float moves downwardly as illustrated in Fig. 4, the abutment section 17'' of the shorter retainer element 17 engages the support disk 12 before the longer retainer element 17' does, thereby causing the pivot axis 30 to move to and be locked into an inclined pivot axis position 11' relative to the longitudinal axis 5. On the other hand, the other pivot axis 31 which is not affected by the retainer elements 17, 17' can remain perpendicular to the axis 5 and thus is not inclined. As used herein, a non-inclined pivot axis 30, 31 would be perpendicular to the longitudinal axis 5, while an inclined pivot axis 30 (11') would not be perpendicular to the longitudinal axis 5. Thus, when the pivot axis 30 is inclined as shown by 11', this pivot axis causes the support disc and sealing disc 12, 15 to be in the inclined position having a longitudinal axis 5' relative to the housing longitudinal axis 5. This allows the left side of the sealing disk 15 to pull away from the valve seat 19 before the right side as shown in Fig. 4 and as further described below.

Replace paragraph 0025 with the following amended paragraph:

[0025] As is known per se, the position of the floating body 3 inside the bleed valve, which is oriented vertically in the installed condition, is determined according to the forces which act upon the floating body, namely a resilient force which acts upon its underside 3', a lifting force in dependence upon the fluid level

inside the housing 1 and a mass force, wherein the spring in conjunction with the material of the floating body 3 is selected with the proviso that in the open position of the valve as illustrated in Figure 2 which is normally characterised by the absence of a lifting force, the resilient force is overcome by the mass force of the floating body 3 including the parts which are connected thereto and the floating body 3 sinks to the base 1' of the housing 1. In this case, a continuous connection (ventilation flow path) is established between the inlet orifices 4 and the outlet orifice 6, so that it is possible to ventilate and similarly bleed the tank substantially without any hindrance. The sealing disc 15 in this position thus does not have any contact with the valve seat and the support disc 12 lies on the underside on the guide mandrel 11 which at the same time exerts a centring effect upon the sealing disc or the support disc. A radial guiding effect is also exerted by the support fingers 10, the radial outer sides of which are disposed at a small spacing with respect to the radial inner side of the annular step of the support disc 12.

Replace paragraph 0027 with the following amended paragraph:

[0027] The closed state of the bleed valve as illustrated in Figure 3 is characterised by virtue of the fact that e.g. under the influence of a lifting force which is effective in addition to the resilient force and the mass forces, the floating body 3 has moved inside the housing 1 upwardly in the direction of the cover 2, so that the sealing disc 15 lies against the valve seat 19. The stabilising effect of the support disc 12 provides a reliable and reproducible sealing effect. At the same time, in this position the projection 16 is urged into sealing abutment against the guide mandrel 11. The retainer elements 17, 17' do not function when the valve is in this position.

Replace paragraph 0030 with the following amended paragraph:

[0030] The state illustrated in Figure 4 where the valve starts to open anew following on from a closed state is characterised by the fact that the sealing disc 15 becomes gradually detached from the valve seat 19, wherein the detachment procedure is initiated as a result of the movement of the floating body 3 in the direction towards the base 1' of the housing 1 by virtue of the retainer element 17 which in axial terms is relatively shorter, and correspondingly the valve begins to open at a point on the periphery of the valve seat, so that the sealing disc 15 assumes a temporary inclined position with respect to the axis 5. The expenditure of energy required for the detachment can be kept low in this manner, i.e., it is easier to unseat the sealing disc from the valve seat.